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ABSTRACT

This paper was written to help local level advocates in the human services understand and use statistical data from the U.S. Bureau of the Census. Because of budget cuts, difficult times are ahead for human services delivery. Advocates need to strengthen their technical skills. In the first section of the paper, two new programs of published data for small-area data users are described: the Neighborhood Statistics Program and the Summary Characteristics for Governmental Units. For readers interested in obtaining more data than is provided by these two programs, the second section outlines the content of the 1980 census questionnaire, defines the geographical areas for which data are published, and describes the basic publications that the Bureau will be producing. Computer tapes containing census data are also briefly described. In the third section, two technical issues are discussed. The first issue discusses threats to the quality of data, with emphasis on how a person can investigate the adequacy of coverage procedures that were used for the 1980 census in local areas. The second issue focuses on discussion of error associated with population estimates based on sampled data. The fourth section presents guidelines for using data in advocacy work. How to link data to the issues, and how to display data are examples of topics discussed. The last section cites three sources of information for further assistance: printed materials, technical assistance resources, and local resources. (Author/RM)

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USING 1980 CENSUS DATA FOR LOCAL-LEVEL ADVOCACY: AN INTRODUCTION FOR NONTECHNICAL READERS

John C. Moore, Jr.

SP 013 624

April 1980
Day Care Council of America, Inc.
Washington, D.C.

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I am also indebted to Jan Yocum for her encouragement throughout this project and for the time she devoted to reviewing plans for the paper, critiquing the earlier draft, and in coordinating the Council's resources to produce and publish the paper in its final form.

PREFACE

Times are getting tougher in advocating for public and private support of social and human services. We are entering into what may be a long period of belt tightening due both to our country's economic problems and to the political swing toward more conservative attitudes about government.

There is a saying, "when things get tough, the tough get going." As we face the more difficult times ahead for human service delivery, we need to strengthen our technical skills as advocates. The intent of this paper is to do just that. We hope that this paper will equip you with a basic understanding of how to use statistical data in your work as advocates, of the Bureau of the Census as a source for local-level data, and where to turn for further assistance.

As an advocate for human services, I can report from my own experience that properly used statistics are an effective tool for persuading others on the need for services. As one who isn't trained in research methods, I can also report to you that I have little interest in statistics or statistical methods, except as they may be helpful in my work as an advocate. For those of you who are like me, I would encourage you to concentrate on Section 1 and the first half of Section 4, in order to learn the rudiments of what is available from the Bureau of the Census and how to use it. Further technical information on census data is supplied in Sections 2 and 3, which you can refer to when needed. More detailed information on selecting and displaying data is presented in the latter half of Section 4.

I encourage you to write us with advice as to changes you feel are needed. Your feedback would be invaluable to any revision of this paper in the future.

Jan Yocum
Executive Director

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Introduction

This paper has been written for local-level advocates as an introduction to using data that the U.S. Bureau of the Census collected during its 1980 decennial census. While most examples involve day care advocacy, the paper should be just as applicable for advocates concerned with other human services at the local level. It is assumed that you, as advocates, have little or no interest in statistical information beyond its instrumental value as support for your efforts to expand or improve upon services in your community. Also, you do not need special technical knowledge or skills in research to take advantage of the information presented in this paper.

With this paper as a guide, it is hoped that, at a minimum, you will know how to find published census data for your community that are still relevant to human service advocacy and will have a basic understanding of how to apply the data in your work as advocates. It should be stressed that the paper is no more than an introduction to applying statistical data to local-level advocacy efforts, rather than a complete guide. Whenever possible, references are supplied for readers interested in moving beyond the basics. Every effort has been made to seek out useful references that are not too expensive and that can be readily obtained.

Considering the nation as a whole, there is no single source better than the Bureau of the Census for population data at the local level. For about two-thirds of the population, data are published for areas as small as city blocks, which have an average of about one hundred people. Furthermore, you should not have to go further than your city, county, or college main library to obtain the data from the printed reports. The reports will provide you with information on the age, employment, income, race/ethnicity, language, education, and housing characteristics for the people living in your neighborhood or community, as well as comparable data for other sections of your city, county, or state with which to make comparisons.

Recent developments make the Bureau a better source than previously for small-area population data. During the 1970s, the Bureau faced a great deal of pressure to improve: coverage of minorities (who had been under-counted in previous censuses), identification of Hispanic people, and publication of data for neighborhoods and small towns. These improvements should make the Bureau a more worthwhile source for population data to be used in your work as advocates.

In the first section of this paper, two new programs of published data for small-area data users are described: the Neighborhood Statistics Program and the Summary Characteristics for Governmental Units. The programs are especially useful for those of you with the least interest in dealing with statistics, but who recognize the utility of data in advocacy. (For those of you living in communities that are not participating in the Neighborhood Statistics Programs, the Census Tract Report can serve this same function).

For readers interested in obtaining more data than is provided by these two programs, the second section outlines the content of the 1980 census questionnaire, defines the geographical areas for which data are published, and describes the basic publications that the Bureau will be producing. This section also briefly describes the computer tapes which you might want to use, if the printed reports are not adequate for your data needs.

In the third section, two technical issues are discussed: (a) threats to the quality of data, with emphasis on how you can investigate the adequacy of coverage procedures that were used for the 1980 census in your local area, and (b) discussion of error associated with population estimates based on sampled data (most of the 1980 census data were actually obtained from a one-sixth sample of the population). Your use of census data might be challenged on the basis of these nonsampling and sampling errors. This section should at least inform you of the ways in which the quality of data for your locality might be challenged.

The fourth section presents guidelines for using data in advocacy work. The discussion is by no means complete, but several concepts are introduced and references to further information are provided. It is hoped that the information contained in this section will equip you with the minimum skills needed for using data in developing your own "statement of the problem" or "needs assessment."

In the last section, ways in which you can get assistance are presented. Featured in this discussion are several printed references and sources of free or reasonably priced technical assistance.

PART ONE: ION OF CENSUS DATA

1. New Programs for s Data Users

According to rep the Bureau, procedures for the 1980 census have sted so as to improve the usefulness of the data flevel data users. These reports emphasize that s have been designed to improve upon the timeliiity and amount of data tabulated at several geoglevels (see Section 2).

There are two nas that should be of particular interest to local-levces: the Neighborhood Statistics Program and the repor entitled Summary Characteristics for Governmental Unitprogram will require little effort on your part toate, and the statistics obtained are likely to be pertidvocacy issues at the neighborhood, community, cnetropolitan level.

Neighborhood Statistin

Traditionally, i-level census data has been published either at tlock level (averaging one hundred people) or for cts (averaging four thousand people). While thereat deal of information published at the tract level, tries for census tracts often are not the same as tries used in local-level planning, thus limiting the usef census data. While it is usually possible to comk-level data manually according neighborhood boundariureau publishes data at this level for only a few reas. To overcome these limitations on tract and a, the Bureau has created the Neighborhood Statistin. In this program, the Bureau will tabulate a rangeraphic, social, and economic data at the neighborh for your community, using the boundary lines that ynity has designated.

You can obtain through meeting three criteria and by making a writtt to participate no later than December 31, 1980. Teligibility criteria are: (a) the neighborhoodsn data are to be provided must have official recognih as in a letter written by the highest elected c(b) neighborhoods cannot overlap with each other (data cannot be clearly aggregated), and (c) the rods must have some advisory

mechanism through which citizens can voice their opinions on community issues. (See Appendix A, for the formal program description published in the Federal Register.)

The request to participate is normally written by your highest elected official (usually the mayor). In the letter the official must address each of the above criteria with appropriate documentation, and with a brief description of the neighborhood advisory mechanism and the boundary lines that define your community system of neighborhoods. If your community has more than one system of nieghborhoods, the official simply designates which one is to be used for the purpose of this statistical program. If your official refuses to write the request letter, the neighborhood advisory mechanism (such as a central neighborhood council) can write the request letter on its own, provided that the advisory mechanism can document its official status (such as a legal statue through which the mechanism was originally established).

One enrolled in the program, the Bureau will send you maps and instructions in early 1981 so that you can further define your system of neighborhoods in terms of Census geographic areas (blocks, block groups, or census tracts). The Bureau will then tabulate the statistics at their own expense, including such subjects as age, employment, income and housing characteristics. The range and format of the statistics will be the same as the census tract reports (see Appendix D for table outlines), and that data will be accompanied by definitions of all terms. The Bureau will be tabulating the data in late 1981 or early 1982 on a low basis.

If you are interested in having your community participate, the first step is to inquire locally to see if your community has already applied. Inquire with your community's "planning director" or "community development office." If you cannot get the formal request letter written before the December deadline or have need for further information, you can send an informal letter of intent to participate. An advantage of doing this is that the Bureau will assist you in analyzing your eligibility and will advise you on the adequacy or need for documentation in your community's formal request letter.

For any correspondence regarding the Neighborhood Statistics Program, you should write to:

Ms. JoAnne Eitzen
Decennial Census Division
Bureau of the Census
Washington, D.C. 20232

Summary Characteristics for Governmental Units

This second program will provide a more limited set of statistics, but will not require any effort to participate. The principal limitation of the statistics is that the data are to be provided at the larger jurisdictional levels of state, metropolitan area (SMSA), county, town and place (see next section for definitions).

Essentially a tabulation program, the Bureau is planning to provide basic 1980 population and housing statistics to all 39,000 general-purpose local governments (defined as recipients of Federal revenue sharing allocations). Statistics will cover race, age, labor force participation, income characteristics and other subjects. All local governmental units within a given state will receive the same report, which will permit you to compare the statistics for your community with those of other places in your state. However, for more detailed statistics within your community, you will need to rely on either the Neighborhood Statistics Program or the standard reports discussed in Section 2.

The exact table layouts for statistics produced under this program are presented in Appendix D. You can expect to have the data available locally by sometime in the period of September 1981 to April 1982.

2. Description of 1980 Census Data and Publications

This section begins with a description of the 1980 census questionnaire and geographical areas for which data are tabulated, followed by a description of the Bureau's printed reports and computer tapes based on the data collected.* Further information on the complete range of data products is contained

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*The Bureau also publishes all final reports on microfiche and plans to have some of the statistics from computer tapes on microfiche as well. Most large libraries have machines for reading microfiche.

in a user's guide, catalog of new releases, and an index linking subject matter and geographic levels of aggregation to the printed reports and computer tapes. These are described in Section 5 and listed in the references at the end of this paper. All of the Bureau's publications may be reviewed in the U.S. Department Commerce's District Offices, which are listed in Appendix B.

Subject Matter

Items included on the census questionnaire are about equally divided between population and housing subjects, with most questions being asked of only a one-sixth sample from the full population. Figure 1 on the following page lists all items that appeared on the 1980 census questionnaire. Except as noted, items are identical to the 1970 census in order to permit study of trends over time.

For data users, there is an important difference between questions asked of the whole population versus the one-sixth sample. Tabulations from the complete-count items will be published for areas as small as city blocks. In contrast, tabulations for sampled data will only be published for geographical areas having populations of at least a few hundred households. Reports based on complete-count data will be available six to twelve months before reports for sampled data for any given area.

Geographical Areas

The Bureau never publishes data from individual questionnaires since that would violate its commitment to confidentiality and because results from a single household have no statistical value. It is only as groups of households are considered that the data become useful. For researchers, the intent is to consider how two characteristics relate (such as income and education) within a certain population, rather than on a case-by-case basis. For planners or advocates, grouping data by geographical area is essential to deciding how to distribute public resources. Among the Bureau's small-area data reports, one can find data aggregated at several levels, ranging from individual city blocks to whole states or major metropolitan areas.

For small-area data users, it is essential to know the definitions of the geographical areas for which data are tabulated. One set of areas are political, and include the nation

Figure 1

Summary Listing of 1980 Census Data

1980 Census Data

100-percent population items
- *Household relationship
- Sex
- Race
- Age
- Marital status
- *Spanish Hispanic origin or descent

100-percent housing items
- Number of housing units at address
- *Complete plumbing facilities
- Number of rooms in unit
- Tenure (whether the unit is owned or rented)
- *Condominium identification
- Value of home (for owner occupied units and condominiums)
- Rent (for renter-occupied units)
- Vacant for rent, for sale, etc., and period of vacancy

Sample population items
- School enrollment
- Educational attainment
- State or foreign country of birth
- Citizenship and year of immigration
- **Current language and English proficiency
- **Ancestry
- Place of residence 5 years ago
- Activity 5 years ago
- Veteran status and period of service
- *Presence of disability or handicap
- Children ever born
- Marital history
- Employment status last week
- Hours worked last week
- Place of work
- **Travel time to work
- *Means of transportation to work
- **Persons in carpool
- Year last worked
- Industry
- Occupation
- Class of worker
- *Work in 1979 and weeks looking for work in 1979
- *Amount of income by source in 1979
- **Total income in 1979

Sample housing items
- Number of units in structure
- Stories in building and presence of elevator
- Year unit built
- *Year moved into this house
- Source of water
- Sewage disposal
- Heating equipment
- Fuels used for house heating, water heating, and cooking
- *Costs of utilities and fuels
- Complete kitchen facilities
- Number of bedrooms and bathrooms
- Telephone
- Air conditioning
- Number of automobiles
- **Number of light trucks and vans
- **Homeowner shelter costs for mortgage, real estate taxes, and hazard insurance

Derived items (illustrative examples)
- Families
- Family type, size, and income
- Poverty status
- Population density
- Persons per room ("over crowding")
- Household size
- Institutions and other group quarters
- Gross rent
- Farm residence

*Changed relative to 1970
**New items

Source: Census '80 Introduction to Products and Services

as a whole, states or territories, congressional districts, counties, minor civil divisions (which are legal subdivisions of counties, often called townships), and incorporated "places" (cities, villages,etc.).

There are also several statistical areas which the Bureau has established for the purposes of collecting the data and tabulating it. Ordered from largest to smallest, the principal statistical areas are:*

Census regions and divisions-- the 50 states are divided into four regions, each containing two or three divisions.

Standard metropolitan statistical areas (SMSAs)-- usually consisting of a central city with a population exceeding 50,000, the county in which it is located, and other contiguous counties that are metropolitan in character and integrated with the central city socially and economically.

Urbanized areas-- defined by population density, each including a central city and suburban fringe, with a combined population in excess of 50,000.

Urban/rural-- all persons living in urbanized areas or in places of 2,500 or more are considered as "urban," with all others classified as "rural."

Census county divisions-- statistical subdivisions of a county, defined for those states where minor civil divisions are not appropriate for publishing data.

Census designated places-- residential concentrations whose population considers itself belonging to a geographically defined "place," although not legally incorporated.

Census tracts-- statistical subdivisions of an SMSA with an average population of 4,000.

Enumeration districts-- census collection areas used as tabulation areas where block statistics are not collected. Not used in printed reports.**

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*Definitions adapted from Census '80 Introduction to Products and Services.

**Tabulated data are, however, available in the forms of computer printouts and are inexpensive to purchase.

Block groups-- census tabulation areas intermediate between census tracts and blocks. Not used in printed reports.*

Blocks-- the smallest census geographic area, used as basic tabulation areas in urbanized areas and incorporated places over 10,000.

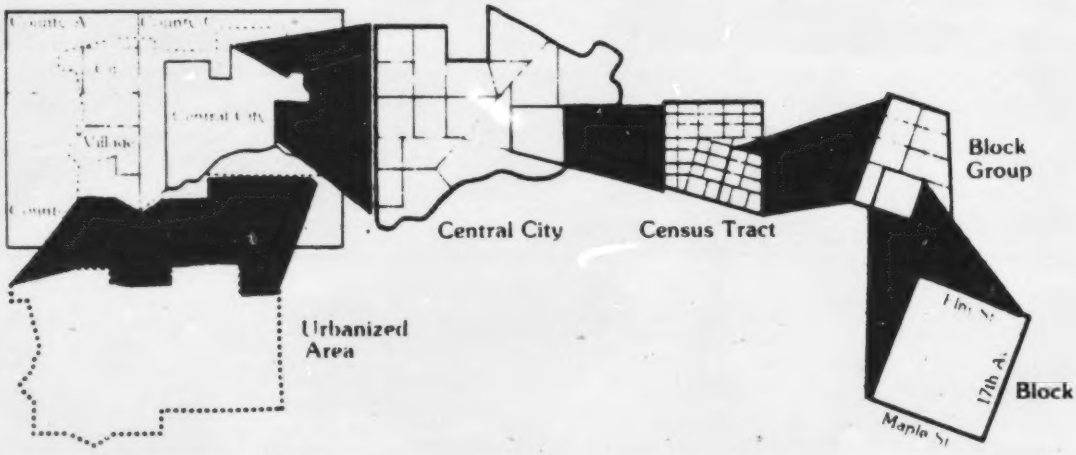
Several of these areas are depicted graphically in Figure 2.

BEST COPY AVAILABLE

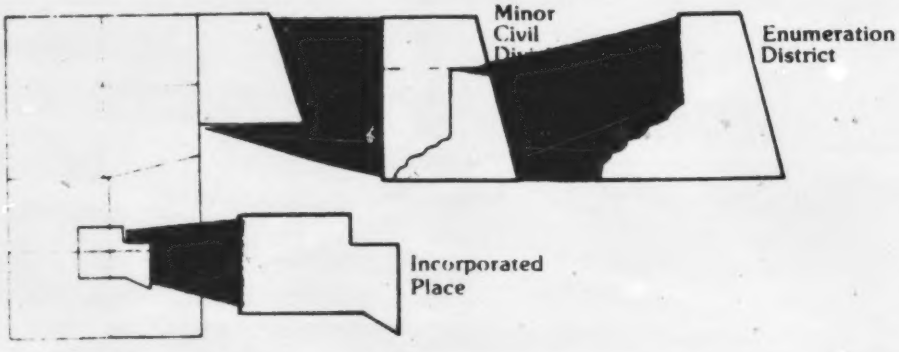
Figure 2

Geographic Areas for Which Small-Area Data are Tabulated

SMSA/Metropolitan Counties



Nonmetropolitan County



Source: Census '80 Introduction to Products and Services

*Tabulated data are, however, available in the forms of computer printouts and are inexpensive to purchase.

It should be pointed out that the Bureau has contracted with five states (Georgia, Mississippi, New York, Rhode Island, and Virginia) and about three hundred communities in other states to completely "block" their area. Thus, even if you live outside an urbanized area, you might still be able to obtain block data. To find out if your community is participating in this program, you can call or write to the Bureau's regional office or state data center (see Appendix B for addresses).

It is also important to note that the amount and type of data published is more restricted for smaller areas. At the block level, only complete count data are published, since the sampled data are not based on enough households to produce reliable estimates. The extent of cross-tabulation is restricted for individual blocks, due both to concern for revealing individual identities and because of the expense entailed. For your purposes, however, the more significant restriction is the fact that sampled data are not published for individual blocks.

In your efforts to link data to advocacy issues, it may be useful to obtain Census maps that define the actual boundaries for census tracts, block groups, and the other Census-designated areas. These maps are published in most small-area reports. If you are planning to use 1980 census data not yet published, you might be able to purchase the map in advance from the Data User Services Division or obtain a copy from your community development office or planning director. The maps produced by the Bureau and their availability are listed in Figure 3.

A final geographical area for which data will be available is the school district. The National Center for Education Statistics is planning to publish complete-count and some sampled data by school districts. Data will be published within a few months after they are available from the Bureau, the earliest being complete-count data toward the end of 1981. School districts, whose boundaries do not coincide with the county lines, will be called upon to supply NCES with boundary lines in terms of census-defined geographic areas. For further information you can contact your school district office or write to:

Mr. Fred Beamer
1980 Census Data by School District Project
National Center for Education Statistics
400 Maryland Avenue, S.W.
Washington, D.C. 20202

Figure 3

Summary Listing of Maps Produced by the Bureau[a]

Metropolitan map series[b] covers the urbanized portion of each SMSA. Maps show names of streets, significant features, boundaries, and names of all districts, census tracts, enumeration districts, and blocks.

County maps[c] cover counties or portions of counties outside the urbanized portion of SMSAs with similar information presented as in the Metropolitan Map Series. Maps usually obtained from state highway departments, with census geography superimposed.

Place maps[c] cover all 1980 incorporated places and census-designated (unincorporated) places not included in the Metropolitan Map Series. Place maps are usually obtained from local agencies and contain similar information to that which is shown on the Metropolitan Map Series. Maps for places of 10,000 or more within SMSAs will appear in the 1980 Block Statistics report.

Tract outline maps[b] cover all SMSAs, showing only street names and other features with which to identify boundaries for census tracts, counties, and places over 10,000 within the SMSAs.

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[a]List does not include national maps or maps displaying data summaries.

[b]Maps accompany 1980 census publications and are available for purchase separately.

[c]Only available for purchase independent of publications, except as noted.

Printed Reports

The Bureau publishes a large number of reports based on the 1980 census data. The very first reports to be published contain only basic "counts" of the population and housing units, published first in preliminary form, as compiled by the field offices during the fall of 1980. Final counts will be issued in "advance" reports during the period of November 1980 to February 1981. (Tentative dates for all reports span a range of up to five months. Generally, the reports are issued separately by state, with the smaller states being ready for publication sooner).

Final reports for population data only are listed in Figure 4. The first three reports consist of data reported by individual blocks (complete count data only), census tracts, and local governmental units. More detailed reports of the population data will be published in two volumes: characteristics of the population and subject reports. The first volume actually will consist of four "chapters," of which the first three are tabulated by most geographical levels. The four chapters in this volume are:

A. Number of Inhabitants

B. General Population Characteristics

C. General Social and Economic Characteristics

D. Detailed Population Characteristics.

For a given state, each of these chapters will be published separately in paperback as they become available. The four chapters for a given state will later be published in a combined hard-cover edition. Subject reports (which are not tabulated by geographical area) will be issued throughout the 1980s.

Appendix C to this paper provides more information about the printed reports. The appendix contains more precise information from which Figure 4 was constructed, and it is particularly useful for readers concerned about availability of data for the District of Columbia, territories, Indian reservations, and Alaskan native villages. Final reports for housing subjects are also described. The appendix also shows changes from 1970 to 1980 in the numbering scheme for the PHC reports and describes portions of PHC(2) and PHC(3) that can be obtained ahead of publication, for those urgently in need of the data.

Figure 4. Final Reports of Population Data Collected During the 1980 Census*

	Report Title and Content	Unit Volume-- By Geographic Area	Expected Release Date	Number
Joint Population and Housing Reports	Block Statistics Selected population	One report for each SMSA-- by block One report for each state-- by block for cities over 10,000 outside SMSAs and for communities with a special Bureau contract	1/81 - 6/81	PHC(1)
	Census Tracts Most population and housing subjects	One report for each SMSA-- by tract One report for the tracted balance of each state	9/81 - 4/82	PHC(2)
	Summary Characteristics for Governmental Units Selected population and housing subjects	One report for each state-- by SMSA and local government	9/81 - 4/82	PHC(3)
Population Characteristics	Number of Inhabitants Population counts only	One report for each state-- by county, SMSA, urbanized area, county subdivisions, and places of 1,000 or more	12/80 - 4/81	PC(1)-A
	General Population Characteristics Age, sex, race, Spanish origin, marital status, and household relationship	One report for each state-- by areas similar to PC(1)-A	2/81 - 8/81	PC(1)-B
	General Social and Economic Characteristics Selected subjects from sampled items	One report for each state-- by areas similar to PC(1)-A	9/81 - 4/82	PC(1)-C
	Detailed Population Characteristics Most subjects from sampled items, with cross-tabulation by age, race, etc.	One report for each state-- not tabulated by small areas	12/81 - 9/82	PC(1)-D
	Volume 1. Characteristics of the Population	One report for each state or territory, in hard-cover edition containing content from PC(1)A, B, C and D. One report containing only PC(1)-A data for all 57 states and territories.	1982	PC(1)
	Volume 2. Subject Reports Detailed cross-tabulations for subjects such as national origin, race, Spanish origin, marital status, income and poverty status	One report for each subject-- not tabulated by small areas	1982	PC(2)

*See Appendix C for more exact report descriptions.

In Appendix D, table "shells," which show the actual format for the three joint final reports (block statistics, census tracts, and local governmental units) are presented so that you can see the exact format in which the data will be published. For the remaining final reports, you can refer to the 1970 counterparts, since most tables will have similar format to the reports of the preceding census.

Computer Tapes

For readers whose data needs are not satisfied with the printed reports or tables published on microfiche, the Bureau provides census data on computer tape, accompanied by several geographic files and software for data processing. In addition to special-purpose files, the Bureau produces two types of data files on computer tape: Summary Tape Files, which present extensive cross-tabulated data by geographical area (far more than anyone would want in printed form), and Public Use Sample files, which provide individual records (names and addresses deleted) for a national sample of households. Use of the tapes is discussed briefly in Section 4 and their contents are described in Appendix C. Printouts from the computer tapes may also be purchased from the Bureau. Contact your state data representative for help in specifying the printouts you need.

3. Sources of Error in Census Data

In the census data, there are two types of error that you should be familiar with: errors that affect the quality of data collected, and chance variation due to gathering data from a sample instead of the whole population.

As you consider whether or not to use 1980 census data, you should assess whether the data in your locality or for your population of interest is of acceptable quality. While you might be inclined to trust the Bureau's effort as the best available data, the quality in fact varies from one locality

or population subgroup to another. Skeptics might undermine your advocacy work by challenging the basic quality of the data. This discussion will help you form a reply to the skeptics or help in addressing your own doubts about the data.

Only six out of forty population items were asked of all respondents, and the remainder were asked of one-sixth the housing units (one-half the units for communities with populations less than 2,500). Most of the decennial census data are actually estimates, and thus subject to some amount of error. While this issue is purely a technical matter that may be beyond your interest or training to fully understand, your use of data might be challenged based on the issue of sampling error. The discussion has been written in non-technical language, and hopefully will equip you with enough information to realize the potential for error in population estimates and to respond to challenges you might face from others.

Errors Affecting Quality of Data

Nonsampling error includes a range of problems, many of which are not technical in nature. Examples of nonsampling error are:

1. problems with the questionnaire-- confusing language, refusal to answer questions, influence of cultural factors;

2. data collection-- not surveying all housing units, not counting all members of the household, mistakes in reading or making responses (90% of the questionnaires are answered by mail);

3. data processing-- mistakes in editing questionnaires (to correct errors made by respondents or enumerators), coding or transfering the data, and tabulating the results.

While the Bureau conducts special studies to assess the extent of these problems, the results are used to improve upon procedures for the future, rather than to "correct" the data for local areas. For your purposes, there is nothing further you can do or need to know about most of these sources of error, other than to be aware that they may affect the quality of your data.

The most important source of nonsampling error that you should know about is the failure to count everyone in the population. This is critical for establishing districts for political representation, allocating money for human services, and for social planning. In the 1970 census, about half of the undercount was due to missing complete households and the other half due to missing individuals within households. Census studies found that undercounting was worse for men, for adults aged 25 to 34, and for Blacks. Given that local variation was most extreme by race or ethnicity (areas within a community vary more according to race/ethnic composition than by age or sex), this difference is the most important one to be concerned with. Special Census studies have found that the 1970 census missed about 7.7% of all Blacks, compared to about 1.9% of all Whites. These differences may be even more dramatic in particular local areas.

Coupled with pressures to expand access to data for small-area data users, the effect of these nonsampling problems on political representation and distribution of public money gave rise to political pressure on the Bureau to improve its procedures. In preparation for the 1980 census, several programs were undertaken, three of which were the Minority Statistics Program, Complete Count Committees, and the Program for Local Review.

The Minority Statistics Program was comprised of three advisory committees (one each for Blacks, Hispanics, and Asian and Pacific American groups), as well as a program to improve communications between the Census and national minority organizations (the National Services Program) and another effort for communications with local-level organizations (the Community Services Program). One important aspect of the Minority Statistics Program was the production of 32 foreign language guides for use in data collection.

The second program set up to improve 1980 census coverage was the one in which the Bureau encouraged local areas to set up a Complete Count Committee consisting of representatives from neighborhood organizations, religious leaders, members of minority groups, members of the media, and representatives from business, labor and local government. Modeled after the "Correct Count Committee" established by the Mayor of Detroit to serve the same purpose in the 1970 census, the committee's main purpose was to develop a public information campaign about the 1980 census. Guidelines and other materials were mailed to all general-purpose local governments in October of 1979.

The Bureau also established the Local Review Program to give local officials an opportunity to review census counts

before they were made public and while the local census data collection offices were still operating. Again, all local governments were contacted, about 28,000 of which appointed a liaison for the program, as a result of the initial mailing. The responsibility of this individual was to compare the census counts with other local data sources (building permits, utility hook-ups, tax records, etc.). Regardless of whether a liaison was appointed, the Bureau provided all local governments with population counts before they were made public. The Bureau has published a guide for use by the liaisons, entitled 1980 Census Local Review Program.

Any of you who are seriously contemplating using the 1980 census data in your work as advocates are encouraged to assess the quality of coverage obtained in your area before using the data. The purpose of this discussion has been to introduce you to the issues related to quality of data and to the activity that may have taken place in your jurisdiction to assure an acceptable level of quality.

Sampling Error

Most of the data collected in the decennial census are actually obtained from a sample, rather than from the full population. Estimates of the full population are then made using the sample-based data, and these estimates fluctuate in part due to variation in sampling. It is important that you at least be aware that sampling error exists, and it would be desirable for you to know how to estimate the amount of error associated with the statistics you use.

When using census data, the best procedure is to establish "confidence intervals." These intervals define a range of values above and below the estimate within which you have some degree of confidence that the "true" value lies. Confidence intervals may be of any size, but the usual practice is to establish ranges within which an estimate would fall 68, 80 or 95 percent of the time, if samples were repeatedly drawn from the same population. These different levels of confidence are related to the "standard error" of the published estimate. (The 68% confidence interval is one standard error above and below the estimate, the 90% interval is 1.6 standard errors, and the 95% interval is two standard errors above and below the estimate).

In your work, the most frequent need for assessing sampling error will be in deciding whether the difference between your

subgroup of interest and the population as a whole is due to the chances of sampling or due to real differences between the two. Suppose your neighborhood was estimated to have an average income of $10,000, while the community was estimated to have an average income of $12,000. Is the observed difference of $2,000 small enough to be attributed to sampling error, or does the difference reflect a true difference in the average incomes being estimated?

The approach you would take for answereing this question is first to compute the standard error for the difference between the two estimates. If the standard error were found to be $1,000, then you could state that the estimated average income for you neighborhood is about two standard errors below the average income for your whole community. Since the observed difference is equal to two standard errors, you can be 95 percent confident that the income for your neighborhood is in fact lower than that for the whole community, and not due merely to the chances of sampling.

Instructions on how to compute standard errors are given in all of the Bureau's reports that are based on sampled data. The actual procedures to use with census data are not complicated to follow. However, the reports do not fully explain the underlying statistical concepts. For an understandable presentation of the concepts themselves, readers are referred to a book entitled Practical Research. After you have identified particular differences that are of special interest, you could also ask your state or regional data user representative for assistance in the computations (see Section 5). Once having had the procedure demonstrated a few times, you should have no difficulty using the procedure on your own in the future.

PART TWO. USING DATA AND GETTING HELP

4. Using Statistical Data in Advocacy Work

In this section, some notes are presented on how to display the data, once you have decided to link Census data to advocacy issues. As with other sections, the discussion is intended to serve as an introduction, rather than a complete statement on the topics addressed. For readers who want to learn more, references are discussed in Section 5.

This section is begun with comments on statistical information as just one alternative way to approach the truth of the matters with which you are concerned. The merits of the statistical approach are contrasted with your own personal experience in order to show how both may be used in your work as advocates. Other topics discussed are the difficulty in tightly linking data to the issues, the advantages of relative statistics (such as percentages) over the absolute statistics upon which they are based (such as frequencies), the flexibility of data tapes, and techniques for presenting data.

Statistics as Just One Approach to the Truth

Data that you obtain from Census reports or data tapes represent only one approach to the truth. It is not necessarily the best way of knowing, since it does have disadvantages. Our culture reserves a certain reverence for "scientific" approaches to truth, and people without technical training often have a tendency to accept or reject all research methods categorically, rather than using them selectively based on their merits.

Census data and personal experience may be considered as extreme opposites, and contrasting the two will illustrate the strength and weakness of each approach. Census data may be applied to hundreds or thousands of issues, but it is seldom very satisfactory in any one instance. There are less than one hundred items on the questionnaire, yet the resulting data must be relied upon for literally thousands of decisions in public policy or conclusions in social science research. For certain kinds of information (such as age, sex, race, level of education, etc.), survey research in general provides relatively accurate and reliable information, especially when estimating total values for a population.

Surely, the estimate of total children under six or mean annual household income for a city's population is better estimated by a properly designed survey than one would expect from estimates based on the personal experience of a few individuals. Additionally, among sources of survey data, the decennial census is an extremely powerful tool (especially when working with the computer data tapes) for describing specialized populations, due to the incredibly large number of respondents from whom data are collected.

On the other hand, Census data (and special-purpose surveys, though to a lesser extent) are woefully inadequate in any one assessment of a complex social problem. Resolving social issues requires considering many factors simultaneously and applying a very high level of judgment. Furthermore, most of the factors to be considered are very difficult to measure. Thus, the personal experience and judgment of individuals who have been concerned with a complex issue over a long period of time may be far superior to any survey data as an approach to true understanding.

To summarize, Census data or other research results can be used to good advantage in combination with other approaches to analyzing an issue or presenting your position. Neither Census data nor personal experience should be assumed as necessarily closer to the truth, when grappling with complex social issues. The combination of both, however, might generally be superior to either in isolation.

Role of Statistics in Developing Your Position

The role of Census data in advocacy work is analogous to the role of joists and beams in home construction. Census statistics can provide a solid framework for issues, but they are useful more to establish the point of departure, rather than the end point for your position. In day care advocacy, the framework of your house will consist of such characteristics as the population's number of young children, labor force participation rates, number of wage earners in the family , marital status and income. These are good and necessary beginnings, but the finishing work to a fully articulated position is yet to begin. It is at this point that published statistics, such as can be obtained from the Bureau of the Census, begin to lose their relevance, and the refinements revealed in personal experience, the carefully formed opinions of others, structured case studies or systematic special-purpose evaluations begin to become more appropriate strategies upon which to complete the argument.

Use of maternal labor force participation as an indicator of need for day care is an excellent example. Nine out of ten statements on the need for care begin with a statistic on labor force participation rates among mothers with preschool children. Unfortunately, the argument is rarely developed beyond this point. While the position may have had a firm statistical beginning, when not developed further, the overall argument looks remarkably similar to a home builder who ran out of money once the framing was done.

Politicians, reluctant bureaucrats, or competing special interests can readily undermine an advocate whose argument does not develop beyond presentation of basic statistics. A flurry of exceptions to the basic statistic can quickly be brought to bear in such a way as to invalidate the statistic. The connection between maternal employment and need for day care can be challenged by arguing that not all working mothers need day care and that there are plenty of other reasons for using care. Also, care is needed not only by preschool children, but by infants and school-age children as well. A statistic that at first appears to be "the answer" can, at the next moment, be shot full of holes by virtue of the many exceptions to the basic relationship.

However, exceptions do not invalidate the underlying relationship between labor force participation and need for care. They are only refinements to the relationship, and do not invalidate the basic relationship itself. Labor force participation is presently the one best, single characteristic to be associated with need for care. And despite all the exceptions and refinements, few would disagree that the one who works is in greater need for care than the one who doesn't work in the labor force, all other things being equal.

Linking Data to the Issues

Once you have decided to develop part of your advocacy position with statistics, the next step is to define the issue you are dealing with in terms of characteristics for which Census (or any other data source) has collected data. Readers are referred to Figure 1 for the content covered by the 1980 census questionnaire. Defining issues in terms of data elements is not easy to do. To be manageable, it is important to restrict the number of variables to be

included and to keep simple the cross-tabulations or other statistics you feel are needed as support for your position.

The items from the questionnaire only represent the starting point for seeking data appropriate to your issues of concern. As indicated by the several examples given in Figure 1, many additional variables can be derived mathematically through combining two or more items from the questionnaire. Not only will the subject reports (referenced in Figure 4) make substantial use of derived characteristics, but you can also do some limited manipulations based only on the tabulations given in the printed reports (such as obtaining a per-person income statistic by dividing average household income by average number of household members).

For those of you willing to make the extra effort, you can also improve the link between data and your issues by identifying basic population characteristics published both in the small-area publications and used in the detailed subject reports where data are not tabulated by geographical area. In the subject reports, you can investigate how the basic characteristics relate to several other characteristics (such as the relationship of race to other social and economic characteristics). Since you know the racial distribution of your block, tract or neighborhood, it is then possible to estimate what the social and economic characteristics might be, drawing from the findings obtained from the subject reports (most of which are based on the national-level sample.

While substantial technical expertise is not necessary to do this, prior experience in working with data is almost a necessity. The best advice for most readers is to first develop your approach using the 1980 census subject matter index to the printed reports and then to discuss the plans with a data user representative in your state or region. Your approach should be precisely described in terms of specific data elements, source tables from Census reports, mathematical manipulations, and the format of tables you plan to use for displaying your results.

No matter how much information is collected and published, it never seems to be exactly right. The data definitions may not fit your purpose exactly, the data you want may not be tabulated for the geographic level with which you are concerned, or the "unit of analysis" may not be what you want (for example, number of people under the poverty line might be presented for households, when you need them expressed for children). This, of course, is an importan reason why published data must serve only as the point of departure, rather than the final defense of your position.

Relative Versus Absolute Statistics

Given all these limitations, it is generally better to select statistics that portray conditions in relative, rather than absolute terms. For example, it is more persuasive to argue that the need for services has increased based on the change in some characteristic of the population (such as labor force participation or percent with incomes under the poverty line), rather than linking need for service only to the current level of the characteristic itself.

There are four ways in which statistics may be presented in relative terms, each of which has an absolute counterpart on which it is based. They are:

Relative Statistic	Absolute Counterpart
percentage	number (or "frequency")
complex variable*	simple variable
cross-sectional ratio	one population only
longitudinal trend	one point in time

Additionally, the benefits of using relative statistics increase by combining two or more of the above. For example, you could show the extent to which a two-to-one relationship in income levels between groups (a cross-sectional contrast) has increased in the past ten years (a longitudinal trend).

A principal advantage of relative statistics is their comparability. Two percentages or two ratios are more readily compared than the numbers on which they are based. Put another way, relative statistics are, in a sense, standardized through dividing by one hundred (for percentages) or some characteristic, such as the value in a "baseline" year (see the example given below for the third advantage).

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*For the purpose of this discussion, complex variables are the result of merging two or more variables by addition, multiplication, etc. An example would be per capita income, derived from dividing household income by number of people in the average household.

A second advantage of using relative statistics is that they tend to be more stable over time. For example, if one census tract has twice the median income of another tract, the two-to-one relationship is less likely to change than the actual levels of income on which the relationship is based.

A third advantage of relative statistics is that you can use fewer statistics to communicate your message. Consider the following hypothetical statement:

> Between 1970 and 1980, the labor force participation rate for mothers with young children increased 50% faster than the increase in licensed capacity of day care centers.

This one statistic was derived from the following four statistics:

$$\frac{\text{1980 LFP rate}}{\text{1970 LFP rate}} \text{ divided by } \frac{\text{1980 licensed capacity}}{\text{1970 licensed capacity}}$$

This strategy is desirable, because your more selective use of statistics will likely result in more attention paid to each statistic presented.

It should be pointed out that longitudinal statistics are often harder to develop than cross-sectional comparisons. To begin with, you may have to work with separate reports to establish changes between two or more decennial censuses. This can be a fatal problem, if you are dependent on a small public library which does not keep "outdated" census reports. Also, changes in table formats and data definitions can present difficult, if not insurmountable problems. As small-area data users, you have the additional problem of geographical boundaries changing between censuses.

In closing this discussion, it should be emphasized that relative statistics present a different--and possibly deceiving--perspective on a problem, as compared to the absolute statistics on which they are based. Two examples should adequately illustrate this point. Suppose you are arguing that more funds should be allocated to address a given public health problem, based on the percentage of children who become ill or die from the exposure to the problem. However, if the total number of children exposed is small (the absolute number on which your percentage is based), then the problem may deserve less attention than another problem for which far more children are exposed, even though a smaller percentage

may suffer extreme consequences from the exposure. The second example, frequently observed in the mass media, is a statistic on the increase in profits for a big business from one time period to another. If the business operates on a low profit margin, a doubling of profits sounds outrageous, but might not represent an important change in the absolute number of extra dollars involved.

This difference in perspective between relative versus absolute statistics is an excellent case in point as to how statistics can lead to confusion, if not outright deception. Also, while you should prepare your statistical argument for your advocacy position using the most advantageous approach, you should not forget the challenges that an astute observer might raise regarding your particular choice of statistics. If your case is arguable from both the relative and absolute statistics, then use both strategies in your argument, though emphasizing the relative perspective.

Flexibility of Data Tapes

The Bureau makes data available on computer tapes in two forms: cross-tabulated data in more detail than available in printed form, and a sample of individual cases drawn from the one-sixth sample used in the census itself. Working with these tapes provides you with greater flexibility in three ways: (a) you can define your population of concern more precisely, (b) you can better describe the combined impacts of relevant characteristics, and (c) you can construct your own variables through combining two or more original variables contained in the census data.

The added flexibility of using data tapes is accompanied by added decision-making on your part. Working with tapes also will require learning about some aspects of data processing, even though someone else actually does the processing. Computer programmers generally cannot make your decisions on how to set up the tabulations or interpret the data, other than advising you on technical matters (such as computer time needed for a given set of tabulations).

As mystical as data tapes and computer processing might seem to be, you should realize that the social issues with which you are concerned as an advocate and the political processes in which you find yourself struggling are far more mystical than the data tapes and computer processing. You

should not automatically rule out producing your own tabulations or retrieving the tape's cross-tabulated data, simply on the basis of being inexperienced in such matters. If published statistics are not satisfactory in a form that suits your needs, you should investigate possibilities for getting help before relying solely on the more limited printed reports.

A "middle ground" between relying only on printed reports versus obtaining computer data tapes and doing your own tabulations is to purchase printouts for specific tabulations from a State Data Center or one of the organizations mentioned in the later discussion on sources of technical assistance.

Displaying Data

Virtually all of the Bureau's data are displayed as tables, consisting of columns and rows of numbers. This format is most suitable when there is a large number of statistics to be presented, as in the case of a general-purpose report containing descriptive statistics, a definition that fits most Census reports.

In most of your work, however, statistics will be (and generally should be) used very selectively. You should therefore consider alternative forms of display, which are likely to be more effective in communicating your message. Not only are there several basic formats from which to choose (pie charts, line graphs, bar graphs, etc.), but there are opportunities to bring the statistics "alive" through creative use of lines, shading, perspective, symbols, colors,etc. An excellent introduction to display techniques is Editing by Design. Another reference you might find useful is a journal article entitled "How Numbers are Shown."

If you are presenting data in tabular form, it is helpful to keep in mind using mean values in the table rather than percentages. Doing so lets you add another dimension (i.e., an extra characteristic) to a table, without making the table any more complicated. Consider the two alternatives in Figure 5 for displaying relationships of race, income, and marital status. If the intent is to demonstrate that one group has a lower average income regardless of race, either table in Figure 5 will present the needed information, but the upper one will do so more simply (and more effectively). However, if your intent is to show a combined effect of two characteristics

on one subgroup, then you might need the added detail contained in the lower one.

A more general rule, of which the preceding paragraph is but one example, is the importance of using the fewest possible numbers to convey your message. A complicated table may be impressive, but it is unlikely to be effective for any but the most interested or persistent readers. A common mistake is to use numbers that are unnecessarily precise. Despite common practice, percentages rarely ought to be presented in other than whole numbers. Similarly, incomes can be presented in thousands, and populations in thousands or millions. It is a good practice to consider what level of accuracy is a meaningful difference. If less than one percent is not a meaningful difference between groups, then there is no need to present percentages more precisely than as whole numbers. By rounding numbers off to whole digits, hundreds, thousands, etc., the trends are more easily apparent. In fact, the added effectiveness of graphs is often due to the simple fact of rounding off the numbers, which is achieved visually by the readers through noticing a trendline without being concerned about the exact values at each point on the line.

Another technique to keep in mind is to separate frequencies from percentages in your tables. Since your message is often better communicated with percentages (relative statistics), these numbers should be the first to get the reader's attention. However, since frequencies may be needed to show that a sizable group of people is affected, these should be available to the reader. Frequencies can be placed at the bottom of each column, in a separate section of the table, or in an adjacent table.

In displaying your data, you may want to contrast your geographical area or population of interest to all others, excluding your group of interest. In whatever way your group of interest is unusual (hence needing services), the difference is even more dramatic when it is contrasted to the average of all others, excluding your group. All that is required are manual calculations to remove your group from the overall totals presented in the Census reports. For example, if your neighborhood's average income is 50% below the city average, it may be 60% below the average for the rest of the city after excluding your neighborhood.

You should be especially selective in choosing statistics to be mentioned in the text. The purpose of statistics in text is to guide the reader to the essence of your message. A common mistake is simply to "narrate" statistics

Figure 5

Format Alternatives for Displaying Data*

Using Mean Values for a Third Characteristic:

Mean Annual Income by Race/Ethnicity and Marital Status
(income reported in thousands)

Race/Ethnicity	Marital Status: Married	Marital Status: Not Married
White	$22.5	$16.5
Black	19.3	8.2
Hispanic	14.2	9.1
All Groups	$21.6	$15.2

Presenting Data in the Form of Percent Distributions:

Percent Distribution of Annual Income by
Race/Ethnicity and Marital Status

Race/Ethnicity	Income Level	Marital Status: Married	Marital Status: Not Married
White	High	32%	18%
	Medium	48	52
	Low	20	30
	All Groups	100%	100%
Black	High	18%	9%
	Medium	57	19
	Low	25	72
	All Groups	100%	100%
Hispanic	High	15%	2%
	Medium	51	56
	Low	34	42
	All Groups	100%	100%

*Data in these tables are fictitious.

that are already in a table or graph. The preferred technique is to provide only the most essential statistics from an accompanying table. The table, then, becomes an elaboration of the basic message. If you were using the tables contained in Figure 5, here are examples of statements you could make in the text, to support the basic message that marital status is most strongly related to income for Blacks:

Possible Statement in Text	Comments
1. (Lower table) Note that among single-parent families, Blacks have a disproportionately high percentage of families in the lowest income bracket (72%).	1. Not a precise comparison, but readily understood.
2. (Both tables) Marital status is more closely related to income level for Blacks than for either Whites or Hispanics. While this is shown by the differences in mean income among single parent groups, the relationship is more strongly revealed by comparing the proportion of single-parent Blacks in the lowest income group with their White and Hispanic counterparts.	2. Wordy, but understandable. No statistical "handle" to connect the reader to your message.
3. (Lower table) When comparing single- and two-parent families, the increase of the proportion in the lowest income group is highest for Blacks (47%), compared to Whites (10%) and Hispanics (8%).	3. Hard to understand, but the most dramatic statistical statement of the five given in this list.
4. (Upper table) When comparing single- and two-parent families, the mean income drops 58% for Blacks, but only 36% for Hispanics and 27% for Whites.	4. Mean income is less important for policy than proportion in lowest income bracket.
5. (Upper table) While unmarried parents in each racial/ethnic group have lower mean incomes, the reduction in income for Blacks is more than twice that for Whites.	5. Best statistical handle (i.e. "more than twice"), while still including precise percentages in the same statement.

Your choice of statement depends on such factors as are indicated in the above comments. Note that three of the above statements present statistics that are not directly included in the accompanying tables (Figure 5). Very often, the statistic best related to your central message is not contained in the table, but is derived from it.

5. Getting Help

It is hoped that this paper has at least introduced you to the 1980 census data and to using data in your work as an advocate. For some purposes, this paper may be all that is needed for you to begin applying the data. For most, however, further assistance will be needed to implement the process discussed in this paper.

In this section, three types of further assistance are described: information in print, sources of technical assistance, and local resources that might be available. Information in print is especially valuable for readers living in sparsely populated areas, thus having less nearby access to technical assistance and local resources. Unlike printed material, technical assistance by telephone or in person has the distinct advantage of interaction between you and the source of assistance, such that technical matters can be addressed in response to your specific situation. Unfortunately, sources of technical assistance tend to be located in major cities and may not be readily accessible for some readers. For all but the least complicated applications of data to advocacy efforts, you should explore the potential of local resources for what they may be able to supply either in technical assistance or as a free supply of labor.

Information in Print

For anyone planning to make substantial use of the 1980 census data, it is recommended that you obtain an intermediate-level technical guide from the Bureau to have

available as a reference. The most essential references are the user's guide and index to printed reports:

-- 1980 User's Guide. According to the tentative outline, the 1980 version (to be published in late 1980) will contain information similar to the 1970 version. The guide will consist of two parts, the first providing an overview to data content, collection methodology, statistical products, techniques for applying data, and user support services offered by the Bureau, and the second providing technical documentation for the computer tapes. The first part also includes a dictionary of terms and concepts, which may be published separately.

-- 1980 Index. To be published in 1981, this index will use methods similar to the 1970 version to aid users in finding specific tables of cross-tabulated data for population subgroups of interest. This reference will make it easier for you to plan your use of census data in your own office or home. The index will cover all reports listed in Figure 4, except for PC(2) subject reports.

-- Reference Manual on Population and Housing Statistics from the Census Bureau. This manual overlaps considerably with the User's Guide. It has been designed for use in an instructional setting at the college level and incorporates Census developments through the mid-1970s.

There are several other general references available from the Bureau, such as its quarterly catalog of new publications and the monthly Data User News. The danger in prematurely seeking out these references is that the diversity and technical complexity of the Bureau's overall program of publications can easily become overwhelming. Each of the above-listed references will provide you with information about additional Bureau publications if you still need them.

For those needing data from other statistical sources, the most useful index is:

-- Directory of Federal Statistics for Local Areas: A Guide to Sources, 1976. This directory covers such diverse subject areas as agriculture, crime,

employment, housing, prices, and health services. References are described in terms of content, frequency of data collection and geographic areas to which data apply. The directory also has an extremely detailed index to subject content. An "Urban Update" to this directory includes sources of data through 1978 and offers greater detail on statistical sources with emphasis on data from urban areas.

Other publications may be of interest:

-- Case Study: The Location of a Playground. Published as part of the College Curriculum Support Project which produced the Reference Manual listed above, this 24-page publication provides step-by-step explanation of using census data for a resource allocation problem. The approach used is about the simplest possible way in which data might be applied to a local human services problem, and is therefore applicable to those of you who are most reluctant to deal with data but recognize the necessity of doing so.

-- Day-Care Center Resource Allocation System. In 1974, the Bureau joined with the Western Federal Regional Council and local officials in California's Santa Clara County to develop a method of analyzing the supply and demand for day care centers using census tract data. The method was computerized, but some of the approach could be adapted for manual data analysis. The publication is directed to planners and service administrators who are faced with the decision of where to place a new day care center. This 30-page introduction to the system may be helpful in planning your strategy for other human services as well.

-- How to Gather Data About Your Neighborhood. For those of you who want to develop descriptive information about your own neighborhood, this publication should be a useful starting point. The principal strength of the article is in its suggestions for locally available data sources in education, health, social services, governmental organization and spending, employment, income, land use, transportation

and housing. Guidelines on doing your own "neighborhood reconnaissance" or gathering your own survey data are provided as well, though without much detail.

-- Practical Research. For those interested in learning more about research methods, this book is highly recommended. The book is written in a do-it-yourself manner that presents the theoretical aspects of research in an understandable fashion and provides practical guidance for those interested in doing survey research. This book would also be very useful for a reader who might want to learn enough about research methods to be capable of supervising the work of a consulting researcher. If you were to own only one book on research methods, this one would be a good choice.

For other data publications to fit your specific needs, the best strategy is to write to the Data User Services Division in Washington, D.C., as well as to a regional or state representative in your area* to request more information. In your request, provide detail on the nature of the issue to which you will be applying the data in order to obtain reference publications that are more specifically directed to your situation. For example, during the early 1980s, the Dater User Services Division will be publishing special-purpose directories for topics such as housing, energy, and non-metropolitan data sources. Not all regional and state offices are fully aware of publications that may in fact be available, but they may be more knowledgeable about your geographical area. But if you aren't satisfied with the assistance provided, you should also contact the main office in Washington.

As a final note, you should know that there are a large number of repository libraries around the country for all federal publications and many other libraries that receive all the Bureau's publications. To find the one nearest you, contact your regional data user representative.

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*Regional and state representatives are described later in this section.

Technical Assistance

There are three forms of assistance you might need: training in census methods, advice on a specific plan to use data from printed reports, and purchasing printouts of cross-tabulated data stored on computer tapes.

The Bureau's regional representatives regularly conduct introductory workshops on census methods and products. The workshops are free and last only one day. For more information you should write or call the representative in your region (see Appendix B for address and telephone number for the representative in your region). More advanced training in two- and three-day sessions are also available at no cost, but there are fewer workshops offered. In 1980, for example, the Data User Services Division offered only 35 such workshops, 16 of which were conducted in Washington and the remainder offered in:

Atlanta	Dallas	Los Angeles
Boston	Denver	New York
Charlotte	Houston	Philadelphia
Chicago	Kansas City	San Francisco
		Seattle

Once you have become oriented to census data and the Bureau's publications, you should attempt to develop a plan for organizing data. The plan should consist of specifying the issue you are addressing, identifying relevant characteristics for which you will want data, defining how each characteristic relates to the issue, specifying the tables you will want to produce, and specifying the ways in which you will manipulate census data in moving from the Bureau's reports to your own tables. You should progress as far as possible on these several parts of your analysis plan before seeking assistance. The more you can specify, the more helpful others can be in providing guidance. Plans should also be worked out in writing (such as actually drawing tables, though without the data) and may not necessarily be complete when first seeking assistance. Even if you are convinced of the suitability of your approach, it is highly recommended that you still have your plan reviewed by one of the sources of assistance mentioned in this section.

In addition to the regional representative of the Data User Services Division, there are two other sources of technical assistance that you might want to consider: State Data Centers and organizations listed in the National Clearinghouse for Census Data Service. The State Data Center is usually a consortium of state organizations which provides

tape processing, training, and other user services for free or at moderate cost to users. The centers, many of which have affiliates around their respective states, have entered into formal agreements with the Bureau and have themselves received training and technical assistance from the Bureau, as well as copies of printed reports, computer tapes, and software programs. Addresses of the lead agency in each of the participating states are given in Appendix B.

Organizations listed in the clearinghouse (formerly called Summary Tape Processing Centers) are ones which have advised the Bureau that they perform tape processing and other services for data users. They are not franchised, established or supported by the Bureau, and their expertise, services and fees vary widely. If your state does not have a State Data Center, you may want to investigate this source of assistance. For addresses of those in your state, you should ask your regional data user representative or write to the Data User Services Division requesting their clearinghouse list. You should not hesitate to at least try for free advice from these sources, though you should expect that these sources will need to be paid for services beyond possibly free advice on an analysis plan. Particularly if you are working as an advocate without pay, you shouldn't hesitate to see how far you can go with any of these sources of technical assistance.

Local Resources

A college or university, preferably one that offers graduate degrees, is a superb resource to consider. While you need six months or more advance time to make arrangements, it is not impossible to arrange for a group working experience wherein students gain real work experience ("independent study") and academic credit, the university gets its tuition, and you have a source of labor to aid in the effort to link data to your advocacy issues. Depending upon the issue involved, you might try contacting such departments as public administration, social work, or early childhood education. If you are considering collecting your own data, this resource becomes even more suitable, since most departments in the social sciences will give credit for research experience. Not only can you arrange for an important source of labor, but you should be able to arrange for an account at the university's computer center.

Other local resources may be identified during the course of seeking out local sources of data. Agencies that routinely collect data would likely be able to advise you on the suitability of the data as it relates to your issue of concern. They may also be able to comment on an analysis plan or provide direction in how best to organize the information. For ideas on local sources of data, readers are again referred to the publication entitled How to Gather Data About Your Neighborhood.

REFERENCES

1980 Census Local Review Program-- Write to Decennial Census Division, U.S. Bureau of the Census, Washington, D.C. 20233. Single copies free while supply lasts.

Practical Research-- Written by Paul D. Leedy and published by Macmillan in 1978, second edition, $7.50.

Editing by Design-- Written by Jan White and published by Bowker in 1974. Only pages 156 to 173 are applicable to data display. $18.50.

How Numbers are Shown-- Written by Michael Macdonald-Ross and published in Audio Visual Communications Review, volume 25, number 4, Winter 1977, pages 359 to 409.

1980 Users Guide and 1980 Index-- For information on price and date of publication, write to Data User Services Division, U.S. Bureau of the Census, Washington, D.C. 20233.

Reference Manual on Population and Housing Statistics from the Census Bureau-- Subscriber Services Section, Bureau of the Census, Washington, D.C. Published in 1978. $2.00.

Directory of Federal Statistics for Local Areas-- Issued March 1978. May be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for $5.50. Stock Number 003-024-01553-6. The Urban Update, 1977-78 is also available from USGPO for $4.50. Stock Number 003-024-02167-6.

Case Study-- The Location of a Playground-- Available free while supply lasts from the College Curriculum Support Project, Data User Services Division, U.S. Bureau of the Census, Washington, D.C. 20233. If out of print, available for $4.00 from John Moore at 2030 Golf Course Drive in Reston, Virginia 22091.

Day-Care Center Resource Allocation System-- Publication out of print. Available for $5.00 from John Moore at 2030 Golf Course Drive in Reston, Virginia 22091.

How to Gather Data About Your Neighborhood-- May be purchased for $3.00 from the Publications Office of the Neighborhood Technical Information Service, American Society of Planning Officials, 1313 East Sixtieth Street, Chicago, Illinois 60637.

LIST OF APPENDICES

A. Final Criteria for the Neighborhood Statistics Program, issued in the Federal Register on November 21, 1979.

B. List of Contacts for Further Assistance

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APPENDIX A

FINAL CRITERIA FOR THE NEIGHBORHOOD STATISTICS PROGRAM, ISSUED IN THE FEDERAL REGISTER ON NOVEMBER 21, 1979

DEPARTMENT OF COMMERCE

(Appeared in the November 21, 1979, issue of the Federal Register)

Bureau of the Census

Neighborhood Statistics Program

Notice of Determination

The Director of the Bureau of the Census is issuing below a statement on the Neighborhood Statistics Program which includes the final criteria for program participation. The preliminary guidelines were presented for comment in the April 17 issue of the Federal Register (Volume 44, Number 75, pages 22796 and 22797). Expressions of interest in this program or requests for further information should be sent to the Director, Bureau of the Census, Washington, D.C. 20233.

1980 CENSUS NEIGHBORHOOD STATISTICS PROGRAM

In recent years, there has evolved a new type of officially recognized area, frequently called a "neighborhood," which provides concerned citizens a means of communicating with local officials. The Bureau of the Census has developed the Neighborhood Statistics Program to assist jurisdictions that have such subareas by providing to local officials and neighborhood representatives basic demographic, social, and economic data by neighborhoods. These statistics are needed to determine the socioeconomic characteristics of the population residing in each area, to gauge the possible qualification of the area for participation in Federal and other programs (e.g., Community Development Block grants), and to formulate programs needed by neighborhood residents.

As the program evolved, the Bureau obtained comments and advice from many sources including extensive contacts with local officials and neighborhood leaders, as well as national neighborhood organizations and Federal agencies. Based on this input, the Bureau is designating the following three characteristics of neighborhoods as criteria for a locality to participate in the program:

1. Official recognition.--All neighborhoods for which data are to be provided must be officially recognized through: A municipal law or similar legal or administrative action; a letter from the locality's highest elected official to the Director of the Bureau of the Census; or written certification from a central neighborhood council or coalition representing all of the neighborhoods in the locality.

2. Nonoverlapping boundaries.--All the area within any given neighborhood must be considered part of that neighborhood only, no portion of the locality may be included in more than one neighborhood.

3. Advisory representation.--A mechanism must exist whereby concerned residents within a neighborhood are assured the opportunity to present their views on municipal matters to city officials. Examples of such mechanisms are: Elected or appointed representatives, neighborhood councils, citizen associations, and neighborhood liaisons to city hall.

As proposed in the April Federal Register article, the Bureau has eliminated preliminary criterion 2, "complete citywide coverage." Therefore, a city with neighborhoods that meet all three of the final criteria, noted above, but which do not cover the entire municipal area, would be able to participate. In such situations, summary data would be produced for a "balance of city" which would include all areas within the municipality that are not part of a recognized neighborhood.

As indicated earlier, this program is directed specifically to the type of neighborhood which not only is identified as a subcommunity of the locality (because of traditional recognition, socioeconomic homogeneity, or other common interests of its residents), but also has established a means to express the concerns of its residents to the locality's officials and, thereby, plays a role in the local government process. The final criteria have been selected with this purpose in mind. The neighborhoods need to be officially recognized as part of a citizen participation system since cities may have more than one neighborhood program, and it is not possible for the Census Bureau to produce these special data for more than one set of neighborhoods within a municipality. Furthermore, since the data for neighborhoods will not be available until the period of fall 1981 to spring 1982, the program is designed for neighborhoods with broad organizational bases that are expected still to be in existence at that time and beyond. The Bureau is interpreting the expression "official recognition" in a broad manner and, to date, most interested localities seem to meet this guideline.

The nonoverlapping boundaries requirement is necessary because each housing unit and each person must be assigned to one and only one neighborhood for tabulation purposes. In addition, overlapping boundaries would cause duplications in the statistics which would make them difficult to interpret.

The criterion regarding representation is a key factor in distinguishing advisory neighborhoods from statistical areas, wards, transportation zones, and other subareas of localities which have been designated for specific purposes other than citizen participation. Some cities that have neighborhoods which are presently involved in citizen participation also have "inactive"

neighborhoods affiliated with the same system. In such situations, it may be possible to produce data for the inactive as well as the active neighborhoods as long as all the neighborhoods in the system are officially recognized and have nonoverlapping boundaries.

While the focus of this program is on incorporated places, it is recognized that neighborhoods of the type described here also exist in unincorporated places and counties. However, the production of neighborhood tabulations for such localities presents some technical and cost considerations that do not exist with cities. Decisions regarding participation by areas other than municipalities will not be made until the Bureau has been able to explore further both these considerations and the possibility of serving the statistical needs of the areas through other types of small-area data to be produced from the 1980 census.

Participation in the Neighborhood Statistics Program can be initiated by a written request from either the chief elected official of the municipality or an appropriate representative of the neighborhood system (e.g., central neighborhood council). The request should include a description of the neighborhoods in relation to each of the final criteria, appropriate documentation, and, if available, a map showing the boundaries of the neighborhoods. Such requests will be accepted through December 31, 1980; however, for budgetary and planning purposes, the Bureau would appreciate receiving at an early date letters of intent from those localities prepared to send them. Likewise, for localities which plan to apply closer to the deadline, an early expression of interest is desired. If a locality has formally requested participation previously or has sent to the Bureau information regarding its neighborhoods, there is no need to duplicate that correspondence unless the locality's interest or neighborhood system has changed.

Following this Federal Register announcement, an informational mailing of the final program criteria will be sent to the highest elected official of cities with 10,000 or more population and to persons who previously have written to the Bureau regarding this program. Over the next few months, the Bureau will contact again those cities which have expressed interest in participating and analyze individually each situation.

Beginning in the spring of 1981, for areas whose compliance with the program criteria has been determined, the Bureau will provide to each requester the appropriate 1980 census maps and other geographic information along with instructions for preparing a "neighborhood block equivalency list." In that operation, the requester will "define" each neighborhood in terms of census geographic areas which, for the most part, will be census blocks. For blocks cut by neighborhood boundaries, the requester will determine the neighborhood to which the entire block will be allocated since individual blocks cannot be split. The Bureau will review the block equivalency list; however, the local requester will be responsible for its accuracy, for the resolution of any omissions or duplications that it may contain, and for any statistical inaccuracies that may result from undiscovered errors.

The cost of the work performed by the Bureau of the Census in connection with this program will be borne by the Bureau with no charge to the participants. The expense of program participation to the municipality or central neighborhood council will be minimal, i.e., making the written request, preparing the neighborhood block equivalency list, and providing for such local dissemination of the statistics as the requester deems desirable.

At the completion of the tabulation process, a full set of tables containing the statistics for all recognized neighborhoods within the locality--and, where applicable, for a balance of the city--will be provided without charge to the requester. In terms of content, the data for neighborhoods will parallel the statistics published for census tracts and will include such subjects as age, employment, income, shelter costs, and persons per room. The tables will be accompanied by an appropriate text defining the subject terminology and the statistical limitations of the data. Potential methods for further dissemination of the data by the Bureau of the Census are under review. In any event, the neighborhood statistics will be publicly available at reasonable cost.

Maps showing neighborhood boundaries will <u>not</u> be available from the Bureau of the Census; any map preparation or dissemination in relation to this program will be a local responsibility. The Bureau, however, will prepare guides on the use of these data, develop case studies to illustrate various ways of applying them to neighborhood problems, and include sessions in data user workshops to familiarize potential users of the neighborhood statistics with the data.

APPENDIX B

LIST OF CONTACTS FOR FURTHER ASSISTANCE

Bureau Regional Offices and Data User Services Officers

Listed below are the names and addresses of the Bureau's twelve regional data user services officers. Address should also include "U.S. Bureau of the Census." The national office address is Data User Services Division, U.S. Bureau of the Census, Washington, D.C. 20233 (301) 449-1620.

Atlanta, GA 30309: 1365 Peachtree Street, NE, Room 638, Wayne Wall (404) 881-2274.

Boston, MA 02116: 441 Stuart St., 8th Floor, Judith Cohen (617) 223-0668

Charlotte, NC 28202: 230 South Tryon St., Suite 800, Lawrence McNutt (704) 371-6144

Chicago, IL 60604: 55 E. Jackson Blvd., Suite 1304, Stephen Laue (312) 353-0980

Dallas, TX 75242: 1100 Commerce St., Room 3C54, Valerie McFarland (214) 767-0625

Denver, CO 80225: PO Box 25207, 575 Union Blvd., Gerald O'Donnell (303) 234-5825

Detroit, MI 48226: U.S. Federal Bldg. and Courthouse, Room 565, 231 W. Lafayette St., Timothy Jones (313) 226-4675

Kansas City, KS 66101: One Gateway Center, 4th and State Sts., Kenneth Wright (816) 374-4601

Los Angeles, CA 90049: 11777 San Vincente Blvd., 8th Floor, E.J. (Bud) Steinfeld (213) 824-7291

New York, NY 10007: 27 Federal Plaza, Federal Office Bldg., Room 37-130, Jeffrey Hall (212) 264-4730

Philadelphia, PA 19106: William J. Green, Jr. Federal Bldg., Room 9226, 600 Arch St., David Lewis (215) 597-8314

Seattle, WA 98174: 915 Second Ave., Room 312, Larry Hartke (206) 442-7080

State Data Centers

Listed below are the addresses and contact persons for State Data Centers. More detailed information about particular centers or the addition of new centers (for states not presently participating), write to the Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

Alabama

Alabama Development Office
Attn: Gil Gilder
State Capitol
Montgomery, AL 36130
(205) 832-6400

Alabama Public Library Service
Attn: Anthony Miele
6030 Monticello Drive
Montgomery, AL 36130
(205) 277-7330

University of Alabama
Attn: Dr. Carl Ferguson
Center for Business & Economic Research
Box AK
University, AL 35486
(205) 348-6191

Arizona

Northern Arizona University
Attn: Dr. Ron Gunderson
College of Business & Research
Flagstaff, AZ 66011
(602) 523-3657

Arizona Dept. of Economic Security
Attn: Mr. Richard A. Froncek
1717 West Jefferson
PO Box 1623 - 045Z
Phoenix, AZ 85005
(602) 255-5984

Dept. of Library, Archives & Public Records
Attn: Sally Hronek
Federal Documents Section
Capitol, Third Floor
1700 West Washington
Phoenix, AZ 85007
(602) 255-4121

Arizona State University
Attn: Glenda Rauscher
Coordinator of Research
College of Business Administration
Tempe, AZ 85281
(602) 965-3961

University of Arizona
Attn: Dr. Lee B. Jones
Dean of the Graduate College
Administration Bldg., Rm. 501
Tuscon, AZ 85721
(602) 626-4032

Arkansas

Industrial Research & Extension Center
Attn: Dr. Forrest Pollard
University of Arkansas
PO Box 3017
Little Rock, AR 72203
(501) 371-1971

Office of the Governor
Attn: Joan Roberts
State/Federal Relations
Little Rock, AR 72201
(501) 371-2611

Delaware

Office of Management, Budget & Planning
Attn: Helen Gelof
Townsend Bldg.
PO Box 1401
Dover, DE 19901
(302) 678-4271

University of Delaware
Attn: John Falcone, Director
Computer Center
Newark, DE 19711
(302) 453-6065

Georgia

Office of Computing Activities
Attn: Dr. Margaret Park
Director of Information Services
University of Georgia
Athens, GA 30602
(404) 542-3106

Office of Planning & Budget
Attn: Tom Wagner
State of Georgia
270 Washington Street, SW
Atlanta, GA 30334
(404) 656-2191

Louisiana

Experimental Statistics Dept.
Attn: Dr. Nancy Keigh
173 Agriculture Administration Bldg.
Louisiana State University
Baton Rouge, LA 70803
(504) 388-8303

Reference Department
Attn: Blanche Cretini
Louisiana State Library
PO Box 131
Baton Rouge, LA 70821
(504) 342-4913

State Planning Office
Attn: Leigh Harris
4528 Bennington Avenue
Baton Rouge, LA 70808
(504) 925-4584

Division of Business & Economic Research
Attn: Vincent Maruggi
University of New Orleans
Lake Front
New Orleans, LA 70122
(504) 283-0248

Louisiana Tech. University
Attn: Dr. Edward J. O'Boyle
Research Division, CAB
PO Box 5796
Ruston, LA 71270
(318) 257-3701

North Carolina

Institute for Research in Social Science
Attn: Susan Clarke
University of North Carolina
Manning Hall 026A
Chapel Hill, NC 27514
(919) 966-2411

North Carolina Dept. of Administration
Attn: Karan Bunn
Division of State Budget & Management
116 West Jones Street
Raleigh, NC 27603
(919) 733-7061

North Carolina Dept. of Cultural Resources
Attn: David Bevan
State Library
109 East Jones Street
Raleigh, NC 27611
(919) 733-3343

Ohio

Ohio Dept. of Economic & Community Development
Attn: Jack Combs
Office of Research
30 East Broad Street
Columbus, OH 43215
(614) 466-2115

Ohio State University Libraries
Attn: Bernard Bayer
Mechanized Information Center
1858 Neil Avenue Mall
Columbus, OH 43210
(614) 422-3480

Virginia

Tayloe Murphy Institute
Attn: Dr. Julie Martin
Box 6550
University of Virginia
Charlottesville, VA 22906
(804) 924-7451

Division of Planning & Budget
Attn: Robert Griffis
445 Ninth Street Office Bldg.
PO Box 1422
Richmond, VA 23211
(804) 786-7771

Wisconsin

Wisconsin Demographic Services Center
Attn: Donald G. Holl
Department of Administration
Room B-110, 1 West Wilson Street
Madison, WI 53702
(608) 266-1927 or 266-1067

Applied Population Laboratory
Attn: Dr. Doris Slesinger
University of Wisconsin
240 Agriculture Hall
1450 Linden Drive
Madison, WI 53706
(608) 262-1510

U.S. Department of Commerce District Offices

Publications of the Bureau of the Census may be reviewed at the following district offices:

Albuquerque, NM 87102, Suite 1015
Anchorage, AK 99501, 412 Hill Bldg.
Atlanta, GA 30309, Suite 600, 135 Peachtree St., NE

Baltimore, MD 21202, Room 415, U.S. Customhouse
Birmingham, AL 35205, Suite 200, 908 South 20th St.
Boston, MA 02116, 441 Stuart St.
Buffalo, NY 14202, 1312 Federal Bldg.

Charleston, WVA 25301, 500 Quarrier St.
Cheyenne, WY 82001, 2120 Capitol Ave.
Chicago, IL 60603, 55 East Monroe St.
Cincinnati, OH 45202, 550 Main St.
Cleveland, OH 44114, 666 Euclid Ave.
Columbia, SC 29204, 2611 Forest Dr.

Dallas, TX 75202, 1100 Commerce St.
Denver, CO 80202, Room 161, New Customhouse
Des Moines, IA 50309, 210 Walnut St.
Detroit, MI 48226, Room 445, Federal Bldg.
Greensboro, NC 27402, Room 203, Federal Bldg.

Hartford, CT 06103, 450 Main Street
Honolulu, HI 96813, 1015 Bishop St.
Houston, TX 77002, 515 Rusk St.
Indianapolis, IN 46204, 46 East Ohio St.
Los Angeles, CA 90049, 11777 San Vincente Blvd.

Memphis, TN 38103, 147 Jefferson Ave.
Miami, FL 33130, 25 West Flagler St.
Milwaukee, WI 53202, 517 East Wisconsin Ave.
Minneapolis, MN 55401, 110 South Fourth St.

Newark, NJ 07102, 4th Floor, Gateway Bldg.
New Orleans, LA 70130, 432 International Trade Mart
New York, NY 10007, 26 Federal Plaza, Foley Square
Omaha, NE, Suite 703A, 1815 Capitol Ave.

Philadelphia, PA 19106, 9448 Federal Bldg.
Phoenix, AZ 85004, 112 North Central Ave.
Pittsburgh, PA 15222, 1000 Liberty Ave.
Portland, OR 97204, Room 618, 1220 SW Third Ave.

Reno, NV 89502, 300 Booth St.
Richmond, VA 23240, 400 North 8th St.

St. Louis, MO 63105, 120 South Central Ave.
Salt Lake City, UT 84138, 125 South State St.
San Francisco, CA 94102, 450 Golden Gate Ave.
San Juan, PR 00918, Room 659, Federal Bldg.
Savannah, GA 31402, 125-29 Bull St.
Seattle, WA 98109, 1700 Westlake Ave. North

Orders should be submitted to Government Printing Office, Superintendent of Documents, Washington, D.C. 20402.

APPENDIX C

LISTING OF PRINTED REPORTS AND COMPUTER TAPES

CENSUS '80 ADVANCE

1980 Census of Population and Housing

August 1979

U.S. DEPARTMENT OF COMMERCE • Bureau of the Census

Tentative Publication and Computer Tape Program

The results of the 1980 census will be released as soon as they are tabulated and assembled. Three major media will be utilized: (1) printed reports, (2) magnetic computer tapes, and (3) microfiche.

Announcement and order forms for these materials will be available from the Subscriber Services Section (Publications), Bureau of the Census; the Census Bureau Regional Offices; the U.S. Department of Commerce District Offices; and State Data Centers. After publication, census reports are on file in many libraries and also will be available for examination at any Commerce District Office or Census Regional Office.

In this leaflet, the publication program is described in three sections: (1) joint population and housing census reports, (2) population census reports, and (3) housing census reports. It should be noted that a number of the population reports will contain some housing data and a number of housing reports some population data. Also, note that the term "place" refers to incorporated places and census-designated (or "unincorporated") places, as well as to towns/townships in 11 specified States (namely, the 6 New England States, the 3 mid-Atlantic States, Michigan, and Wisconsin).

Following the description of the publication program are sections on the computer tape program, microfiche, certain additional information on the 1980 census data, and the 100-percent and sample subject items included in the 1980 census.

Inquiries concerning any phase of the data dissemination program of the 1980 census may be addressed to the Director, Bureau of the Census, Washington, D.C. 20233. The content and timing of the program outlined in this leaflet are subject to change. Revised versions of this leaflet will be issued as necessary.

Printed Reports

Joint Population and Housing Census Reports

Preliminary

One series will be issued based on preliminary population and housing unit counts as compiled in the census field offices. These figures will be superseded by those in the advance and final reports.

Series PHC(P)
To be issued:
Aug.-Oct. 1980

Preliminary Population and Housing Unit Counts. One report for each State, District of Columbia, and Puerto Rico and other outlying areas, showing preliminary population and housing unit counts for the State, counties, county subdivisions, incorporated places, standard metropolitan statistical areas (SMSA's) as designated prior to the census, and congressional districts (CD's). The series will include a U.S. summary report.

Advance

One series will be issued presenting final population and housing unit counts prior to their publication in final reports.

Series PHC(V)
To be issued:
Nov. 1980-
Feb. 1981

Final Population and Housing Unit Counts. This series will have a report for each State, the District of Columbia, Puerto Rico and other outlying areas, and the United States. Official population and housing unit counts will be presented for the State, counties, county subdivisions, incorporated places, census designated places, SMSA's, and congressional districts.

Final

Series PHC(1)
To be issued:
Jan.-July 1981

Block Statistics. One report for each SMSA showing data for individual blocks on selected 100-percent housing and population subjects. The series will also include a report for each State presenting block statistics for cities of 10,000 or more outside SMSA's and for the communities outside SMSA's which have contracted with the Census Bureau to provide block statistics from the 1980 census.

Series PHC(2)
To be issued:
Sept. 1981-
Apr. 1982

Census Tracts. One report for each SMSA and one for the tracted balance of each State, showing data for most of the population and housing subjects included in the 1980 census. Some tables will be based on the 100-percent tabulations, others on the sample tabulations. The 100-percent data, which will be prepared first, will be made available at the cost of reproduction as they are completed. Statistics will be presented for SMSA's, central cities, places of 10,000 or more inhabitants by census tracts.

Series PHC(3)
To be issued:
Sept. 1981-
Apr. 1982

Summary Characteristics for Governmental Units. One report for each State and the District of Columbia, showing selected population and housing data for each SMSA and the 39,000 general-purpose local governments in the United States. Some tables will be based on the 100-percent tabulations, others on the sample tabulations. For each State, the former will be prepared several months prior to publication of the full report. Copies of these data will be purchasable at the cost of reproduction as they are completed, beginning around November 1980.

Population Census Reports

Final

Volume I. Characteristics of the Population. This volume will consist of separate reports for the United States, each of the 50 States, the District of Columbia, Puerto Rico, Guam, Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands. For each of these 57 areas, the data will first be issued in four separate paper-bound chapters designated as A, B, C, and D. The four chapters will then be assembled and issued in hard-cover, parts 1-57. These parts will be issued in 1982. The 57 chapters A will be assembled and issued (in mid-1981) in a hard-cover edition, designated as Part A. (For the outlying areas other than Puerto Rico, all the data on characteristics of the population will be included in chapter B.)

Series PC(1)-A
To be issued:
Dec. 1980-
Apr. 1981

Number of Inhabitants. Final official population counts will be presented for States, counties, standard consolidated statistical areas (SCSA's), SMSA's, urbanized areas, county subdivisions, incorporated places, and census designated places.

Series PC(1)-B
To be issued:
Feb.-Aug. 1981

General Population Characteristics. Statistics on age, sex, race, Spanish origin, marital status, and household relationship will be presented for States, counties, SCSA's, SMSA's, urbanized areas, county subdivisions, places of 1,000 or more inhabitants, Indian reservations, and Alaskan native villages.

Series PC(1)-C
To be issued:
Sept. 1981-
Apr. 1982

General Social and Economic Characteristics. These reports will focus on the population subjects collected on a sample basis. Each subject will be shown for some or all of the following areas: States, counties, SCSA's, SMSA's, urbanized areas, places of 2,500 or more inhabitants, Indian reservations, and Alaskan native villages.

Series PC(1)-D
To be issued:
Dec. 1981-
Sept. 1982

Detailed Population Characteristics. These reports will cover most of the population subjects collected on a sample basis, presenting the data in considerable detail cross-classified by age, race, and other characteristics. Each subject will be shown for the State and large SMSA's. Some subjects will also be shown for central cities of large SMSA's.

Series PC(2)
To be issued:
1982

Volume II. Subject Reports. Each report in this volume will concentrate on a particular subject. Detailed sample information and cross-relationships will generally be provided on a national and/or regional level; in a few reports, data for States, large cities, SMSA's, or Indian reservations will also be shown. Some of the characteristics to be covered are national origin, race, Spanish origin, type of residence, fertility, families, marital status, migration, education, employment, occupation, industry, income, and poverty status.

Housing Census Reports

Final

Volume I. Characteristics of Housing Units. This volume will consist of separate reports for the United States, each of the 50 States, the District of Columbia, Puerto Rico, Guam, Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands. For each of these 57 areas, the data will first be issued in two separate paper-bound chapters, designated as A and B. The two chapters will then be assembled and issued in hard-cover, parts 1-57. These parts will mostly be issued in the fall of 1982. (For the outlying areas other than Puerto Rico, all the housing data will be included in chapter A.)

Series HC(1)-A
To be issued:
Feb.-Aug. 1981

General Housing Characteristics. Statistics on 100-percent housing subjects will be presented for States, counties, SCSA's, SMSA's, urbanized areas, county subdivisions, places of 1,000 or more inhabitants, Indian reservations, and Alaskan native villages.

Series HC(1)-B To be issued: Sept. 1981- Apr. 1982	**Detailed Housing Characteristics.** These reports will focus on the housing subjects collected on a sample basis. Data will be shown for some or all of the following areas: States, counties, SCSA's, SMSA's, urbanized areas, places of 2,500 or more inhabitants, Indian reservations, and Alaskan native villages.
Series HC(2) To be issued: Dec. 1981- Sept. 1982	**Volume II. Metropolitan Housing Characteristics.** These reports will cover most of the 1980 census housing subjects in considerable detail and cross-classification. There will be one report for each SMSA, presenting data for the SMSA and its component large cities, as well as a report for each State.
Series HC(3) To be issued: 1982	**Volume III. Subject Reports.** Each report in this volume will concentrate on a particular subject. Detailed information and cross-classification will generally be provided on a national and/or regional level. Among the subjects under consideration are housing characteristics by household composition, housing of senior citizens, space utilization and structural characteristics of the housing inventory, mover households, mobile homes, housing of selected racial groups, etc.
Series HC(4) To be issued: 1982	**Volume IV. Components of Inventory Change.** A series of reports for the United States based on a sample survey to be conducted in the fall of 1980. Subject content will be similar to that of 1970 Housing Census Volume IV.
Series HC(5) To be issued: 1982	**Volume V. Residential Finance.** A national report based on a sample survey to be conducted in the fall of 1980. Subject content will be similar to that of 1970 Housing Census Volume V.

Computer Tapes

The major portion of the results of the 1980 census will be provided in a set of five summary tape files (STF's) or tabulation counts. To help meet the needs of census users, these STF's are being designed to provide data with much greater subject and geographic detail than it is feasible or desirable to publish in printed reports. The data so tabulated will be available—subject to the suppression of certain detail where necessary to protect confidentiality—on magnetic computer tape, printouts, and microform, at the cost of preparing the copy. (As the balance of the data dissemination program is developed, additional computer tapes may be made available.)

The first two STF's will relate to the subject items collected on a 100-percent basis in the census. STF 3, STF 4, and STF 5 will relate to the subject items collected on a sample basis in the census, and will also generally include sample data on the 100-percent items for purposes of cross-classification. The respective sets of subject items are listed on page 5 of this leaflet.

All of the STF's will be arranged so that the tapes for individual States can be purchased separately. The anticipated cost per reel, at this time, is approximately $80 (tape included). Once again, please note that the release dates for the 1980 Summary Tape Files are tentative and subject to change.

Summary Tape Files

To be available: Nov. 1980- July 1981	STF 1—approximately 300 categories of 100-percent population and housing data for blocks and block groups (BG's) in blocked areas, and enumeration districts (ED's) in unblocked areas, census tracts, places, county subdivisions, counties, congressional districts, SMSA's, and States. —Source of the PHC(V), PHC(1), a part of the PHC(3), and PC(1)-A reports.
To be available: Jan.-Aug. 1981	STF 2—currently in the design stage, will provide more detailed 100-percent population and housing data for census tracts, Indian reservations, Alaskan native villages, places of 1,000 or more inhabitants, county subdivisions, counties, urbanized areas, SMSA's, SCSA's, and States. —Source of the PC(1)-B, HC(1)-A, and a part of the PHC(2) reports.
To be available: Sept. 1981- Apr. 1982	STF 3—currently in the planning stage, will provide sample population and housing data for ED's/BG's, census tracts, county subdivisions, places, counties, States, and 5-digit ZIP code areas. —Source of a part of the PHC(3) report.
To be available: Sept. 1981- Apr. 1982	STF 4—currently in the design stage, will provide more detailed sample population and housing data for census tracts, Indian reservations, Alaskan native villages, places of 2,500 or more inhabitants, county subdivisions, counties, urbanized areas, SMSA's, SCSA's, and States. —Source of the PC(1)-C, HC(1)-B, and a part of the PHC(2) reports.
To be available: Apr. 1982- Sept. 1982	STF 5—currently in the planning stage, will provide highly detailed tabulations and cross-classifications for States, SMSA's, and large cities and counties. —Source of the PC(1)-D and HC(2) reports.

Other 1980 Census Computer Tape Files

To be available: Nov. 1980-Apr. 1981	**Special Population Summary Prepared in Accordance with Public Law 94-171**—contains counts for total population, major race groups, and Spanish/Hispanic origin. Data will be provided for blocks, ED's/BG's, census tracts, election precincts (where applicable), places, county subdivisions, counties, and States. —Used for legislative reapportionment/redistricting purposes.
To be available: Nov. 1980-Apr. 1981	**Master Area Reference Files (MARF)**—contains numeric codes and names (where appropriate) of geographic areas, and selected population and housing counts. —For use in conjunction with the summary tape files.
To be available: July 1980	**GBF/DIME Files**—computerized versions of the Metropolitan Map Series, which generally covers the urbanized portions of SMSA's. —Used to assign census geographic codes to addresses (geocoding).
To be available: May-Aug. 1982	**Public-Use Sample**—samples of census records containing questionnaire responses for a representative sample of households. No names or addresses will appear in the sample, and the geographic areas identified will be sufficiently large to avoid disclosure.

Microfiche

The 1980 printed reports will also be available on microfiche. There are several other proposals regarding unpublished data being considered by the Bureau at this time. When a final decision is made concerning the 1980 microfiche program, it will be described in detail in later editions of this leaflet.

Additional Information

Several of the publication series and summary tape files will include separate distributions for Blacks, American Indians, Asian and Pacific Islanders, and for persons of Spanish origin. These data will appear in the PC(1)-B, C, and D reports, HC(1)-A and B reports, HC(2) reports, and PHC(2) reports; and in the summary tape files.

Priority in processing of the results of the 1980 census will be given to the official population counts needed for apportionment, legislative redistricting, and other purposes. The first population figures to be issued will be the preliminary summations made in the field offices which will be released locally and then reproduced in the PHC(P) reports. Starting in November 1980, the official figures will become available, a State at a time, in the PHC(V) and PC(1)-A reports and on STF 1 tapes. The law requires that the Census Bureau transmit to the President by January 1, 1981, the official State totals and the new apportionment of Representatives among the several States. The law also requires that the tape files of the Special Population Summary Prepared in Accordance with Public Law 94-171 be issued by April 1, 1981.

By July 1981, the last of the State STF 1 tapes will become available and by April 1981, the last of the State PC(1)-A reports will be issued. The order of processing the States during this period is determined by such considerations as date of completion of the field work, size of State, and complexity of tabulation. The STF 1 will yield official counts for political areas recognized by the Census Bureau. Official population counts for city blocks will become available in the PHC(1) reports and the STF 1 tapes.

To use the computer tape information for enumeration districts, block groups, tracts, and blocks, it is necessary to have the maps which provide the necessary geographic information. These maps will be available for purchase from the Census Bureau.